

I claim:

1. A pneumatic brake booster particularly for a motor vehicle comprising an axial piston (20) interposed between a push rod (24) and a plunger (32, 32') mounted at the end of a control rod (22), and emergency brake assist means comprising a feeler (42, 42') borne by the plunger and able to be moved in axial sliding with respect to the latter and means of axially immobilizing the feeler (42, 42') the said immobilizing means being able to block the feeler (42, 42') with respect to the plunger (32, 32') at rest and under braking when the rate of travel of the control rod (22) and of the plunger (32, 32') is below a limit value, and to allow the plunger (32, 32') to slide with respect to the feeler in the direction of reducing the axial length of the plunger-feeler assembly under emergency braking when the rate of travel of the control rod and of the feeler is above the said limit value, the feeler (42, 42') comprising means (52) collaborating with the piston (20) to define a position of rest of the feeler, characterized in that the aforementioned means defining a rest position for the feeler comprise a pin (52) mounted in a transverse orifice of the feeler.

2. The booster according to claim 1, characterized in that the ends of the pin (52) are housed in oblong slots (56) of a cylindrical part of the piston (20), these slots delimiting a maximum axial travel of the feeler with respect to the piston.

3. The booster according to claim 1, characterized in that the pin (52) passes through at least one oblong slot (54) formed in the plunger (32, 32') and defining a rest position of the plunger with respect to the piston (20).

4. The booster according to claim 3, characterized in that the feeler (42) is housed and guided in sliding in a cylindrical axial passage (40) of the plunger (32).

5. The booster according to claim 4, characterized in that the plunger (32) is guided in an axial

cylindrical passage (34) of the piston (20) comprising, on the same side as the push rod, a radial wall (46) formed with an axial orifice (44) for the passage of the feeler (42).

6. The booster according to claim 5, characterized in that the immobilizing means comprise a pivoting key (62) mounted in a transverse housing (60) of the piston (20) and comprising an orifice through which the feeler (42) passes with clearance, and elastic return means (70) constantly urging the key to bear against the plunger (32).

7. The booster according to claim 6, characterized in that the key (62) can be moved by the plunger (32), under emergency braking, between a position of blocking the feeler (42) and a position of bearing on the piston (20) of the booster, in which position it relaxes the feeler and allows the plunger (32) to slide along the feeler in the direction of the push rod (24).

8. The booster according to claim 1, characterized in that the plunger (32') is housed and guided in sliding in an axial passage of the feeler (42'), itself housed and guided in an axial passage (44) of the booster piston (20).

9. The booster according to claim 8, characterized in that the immobilizing means comprise ramp or wedge means mounted between a cylindrical surface (78) of the plunger (32') and an internal frustoconical surface (81) of the feeler (42').

10. The booster according to claim 8, characterized in that the immobilizing means comprise a plurality of tapered rollers (76) distributed in a ring around the cylindrical surface (78) of the plunger (32') and held axially by two rings (82, 84) slipped over the plunger (32').

11. The booster according to claim 10, characterized in that the immobilizing means are urged axially toward the push rod (24) by elastic return means (86) bearing against a shoulder of the plunger (32').

12. The booster according to claim 11, characterized in that the immobilizing means are pressed by the elastic return means (86) onto a pin (52) engaged in transverse slots of the plunger (32'), of the feeler (42') and of the piston (20).

13. The booster according to claim 12, characterized in that the pin (52) bearing against one end of the slots of the piston (20) at the same end as the control rod (22), defines a position of rest of the plunger (32') and of the feeler (42').

14. The booster according to claim 13, characterized in that the feeler (42') is urged axially by elastic return means (74) in a direction away from the push rod (24).